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Environmental efficiencies and economic growth in the CIS

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Once it became apparent that uncontrolled human activity harmed the ability of the planet to support life, policy-makers all over the world developed national and international strategies and agreements to address environmental issues.

Forecasting the environmental consequences arising from economic growth and predicting the consequences of international trade in pollution permits are two problems facing many national governments. These problems can be particularly challenging in transition countries, which lack experience in environmental regulation, especially within a market-based system.

Environmental consequences of economic growth

Most transition countries provide substantial room for improvement in increasing economic output and reducing environmental degradation. The potential improvements do not require new inventions for pollution reduction; rather, empirical evidence suggests that simply by making the best use of existing technologies, transition countries could reap enormous gains. In particular, estimates suggest that Ukraine can simultaneously increase its GDP by 37% and decrease its major air pollution by 37% should it adopt the best international practices; Moldova can potentially increase its GDP by 20% and decrease its major air pollution by 20%; Belarus, by 18%; Kazakhstan, by 14%; and the Russian Federation, by 8%.

The major sources of current environmental inefficiencies include but are not limited to:

- use of inefficient technological processes and obsolete equipment;
- excessive orientation of production towards highly-polluting sectors and a corresponding lack of development in non-polluting sectors (e.g., services, information technology, and academia).
- inefficient legislation that promotes low-value, high-polluting production.

Movement towards the best global practices can be accomplished by gradually reducing these three sources of inefficiency, while using environmentally efficient countries (such as Sweden, Hungary or Lithuania) as examples to emulate.

If transitional countries do not adopt environmentally efficient production methods and a more environmentally–sensitive mix of outputs, then higher levels of pollution will accompany future measured economic growth. For example, GDP growth of one percent in Ukraine will be accompanied by a two percent increase in carbon dioxide emissions, an eight percent increase in sulfur dioxide emissions, and a one percent rise in nitrous oxide discharges.

To avoid such an ecologically costly pattern of economic development, countries in transition need to move towards global best practices in achieving environmental efficiencies; by initiating changes now, they can ensure that future economic growth will not harm – and even might help – the environment.

International trade in pollution permits

International trade in pollution permits in general and the Kyoto Protocol in particular are currently contentious political issues. A question of special relevance for post-communist countries is whether implementation of the Kyoto Protocol will prove to be beneficial or harmful to them. Country quotas for carbon dioxide emissions are based on 1990 emission levels. Because most transitional countries have seen declining industrial output since 1990, they generally will have excess quotas that they can sell to other nations. At first glance, then, the quotas contained in the Protocol suggest that transitional countries should be eager to embrace the Kyoto terms.

Although post-communist countries may enjoy the revenues from international pollution permit trade until they reach their Kyoto emission target levels, the Kyoto accords imply that any economic growth that involves increased pollution will come at an additional cost.

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Higher pollution levels will require either a reduction in revenues from sales of pollution permits, or, once target emission levels are exceeded, additional payments for acquiring the requisite permits. The Protocol presumably envisions that countries in transition will not soon exceed their emission target levels, so that they will be net suppliers of permits to the international market.

These increased costs of economic growth might hamper capital accumulation and jeopardize future development. So, international trade in pollution permits presents some risk of retarding economic growth in post-communist countries. This risk can be minimized, however. Countries in transition can benefit from revenues coming from trade in pollution permits and sustain economic growth if they ensure that

- **revenues collected from permit sales go primarily to increasing environmental efficiency (e.g., developing non-polluting sectors or improving existing technologies, which will allow increased production without additional emissions);**
- **losses associated with corruption (such as non-enforcement of environmental regulations) are minimized.**

In general, international trade in pollution permits will involve developed countries as buyers and developing countries as sellers. So, developing countries will face a tradeoff between international emission permit sales revenue and other forms of economic development.

Nevertheless, the currently inefficient practices in environmental management present an opportunity for political decision-makers in transition countries. Improvements in environmental efficiency, combined with judicious use of revenues from pollution permit sales, can provide improved living standards and more rapid economic growth.